

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 3 : A01K 97/10	A1	(11) International Publication Number: WO 85/ 02091 (43) International Publication Date: 23 May 1985 (23.05.85)
--	----	--

(21) International Application Number: PCT/GB83/00286

(22) International Filing Date: 14 November 1983 (14.11.83)

Published
With international search report.

(71) Applicant (for all designated States except US): PROTACK EQUIPMENT [GB/GB]; Churchill Works, Clee's Hall, Bures, Suffolk CO8 5DZ (GB).

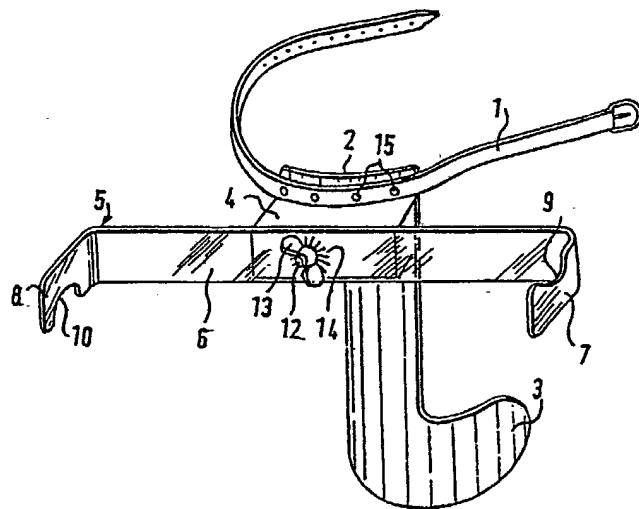
(72) Inventor; and

(75) Inventor/Applicant (for US only) : HEMMINGS, Barry, Edward [GB/GB]; 35 Magnolia Way, Pilgrims Hatch, Brentwood, Essex CM15 9QS (GB).

(74) Common Representative: PROTACK EQUIPMENT; Churchill Works, Clee's Hall, Bures, Sufflock CO8 5DZ (GB).

(81) Designated States: AT (European patent), BE (European patent), CH (European patent), DE (European patent), DK, FI, FR (European patent), GB (European patent), JP, LU (European patent), NL (European patent), NO, SE (European patent), US.

(54) Title: ANGLING AID



(57) Abstract

In order to enable an angler to retain a rod in a convenient position while keeping both hands free for such operations as removing a fish and rebaiting a hook, there is provided an angling aid comprising a harness for attachment to the wearer's body and including a cradle (28, 29) for support of a fishing rod. In the arrangement shown, a thigh embracing element (21) is supported by a side strap (22) forming part of the harness. The element (21) may further be supported from a waist band forming a further part of the harness. The cradle is formed by two out-turned arcuate ends (28) and (29) of a metal rod (27) secured to a raised portion (25) of the part (21) by means of wing nuts (33). The side strap (22) passes through apertures (41) in the element (21) so as pass between the wing nuts and the wearer.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT Austria	GA Gabon	MR Mauritania
AU Australia	GB United Kingdom	MW Malawi
BB Barbados	HU Hungary	NL Netherlands
BE Belgium	IT Italy	NO Norway
BG Bulgaria	JP Japan	RO Romania
BR Brazil	KP Democratic People's Republic of Korea	SD Sudan
CF Central African Republic	KR Republic of Korea	SE Sweden
CG Congo	LI Liechtenstein	SN Senegal
CH Switzerland	LK Sri Lanka	SU Soviet Union
CM Cameroon	LU Luxembourg	TD Chad
DE Germany, Federal Republic of	MC Monaco	TG Togo
DK Denmark	MG Madagascar	US United States of America
FI Finland	ML Mali	
FR France		

- 1 -

"ANGLING AID"

This invention relates to angling aids.

Anglers, particularly competition anglers, frequently need to keep their hands free while still retaining a fishing rod in position and readily accessible, e.g. to 5 remove a fish and/or rebait the hook.

In accordance with the present invention, there is provided an angling aid in the form of a harness for attachment to the anglers body and including a cradle for support of a fishing rod.

10 In one embodiment, the cradle may comprise a strip having two spaced projecting arms, a forward one of which has a recess in an upper edge, while the other, rearward, arm has a recess in the lower edge. The angle of the cradle may be adjustable relative to the harness. The harness may include a belt to pass round the user's body and a forward support to extend downwardly from the belt 15 to rest on the forward part of the user's thigh to inhibit forward tilting of the harness.

20 In an alternative embodiment, the harness may include a waist belt and the cradle may be mounted upon a thigh embracing element secured by a strap around the thigh and also by a vertical strap to the waist belt. The cradle may be formed by bending the metal rod to form two end arcuate portions in planes normal to the length of the rod, one 25 being bent below the rod and the other above. The rod may be readily releasable from the thigh embracing element.



- 2 -

The invention will be further described with reference to the accompanying drawings, which show two alternative embodiments of the invention, and in which:

5 Figure 1 is a perspective view of an angling aid in accordance with the one form of the invention;

Figure 2 is an elevation of the aid of Figure 1, having a cradle in a different position;

Figure 3 is a plan view of the aid as shown in Figure 2;

10 Figure 4 is an elevation of an alternative form of embodiment of the invention;

Figure 5 is a plan view of the angling aid of Figure 4; and

15 Figure 6 illustrates a harness for use with the aid of Figures 4 and 5.

Turning now to Figures 1 to 3 of the drawings it will be seen that a body harness comprises a belt 1 to pass round the user's body. This belt 1 is attached to a curved support element 2 which conforms approximately to the 20 wearer's thigh. Attached to or integral with the support member 2 is a block 4 which carries, somewhat spaced from the wearer's body, a cradle 5.

The cradle 5 consists of a strip 6 with a pair of outwardly projecting arms 7 and 8. The forward arm 7 has 25 a recess 9 on its upper edge, while the rearward arm 8 has a recess 10 in its lower edge. These two recesses between them form a cradle to support a fishing rod with its weight essentially forward of the forward arm 7 so that it tends



to pivot in a clockwise direction about a fork when formed by the recess 9 and is restrained by engagement of the rod of the recess 10. Supporting the rod produces a clockwise, as illustrated in Figures 1 and 2, torque which is resisted by the reaction of the wearer's thigh against the extension 5 3.

The wearer may thus support the rod in the cradle 5 while keeping his hands free, e.g. for removal of a fish and for rebaiting the hook. Retrieval of the rod from the 10 cradle is very simple when manual control is required.

The strip 6 is attached to the block 4 by means of a bolt 12 embedded in the block 4 and a wing nut 13 co-operating therewith. In the region of the bolt 12, the block 4 and the strip 6 may be formed with cooperating 15 ridges and grooves 14 extending in a roughly radial direction, or other similar asperities, in order to improve the frictional retention of the strip against the block 4.

By loosening the wing nut 13, the cradle 5 may be freed for rotation on the bolt 12 and it may be retained 20 in a suitable position by tightening the wing nut 13.

Figures 1 and 2 show the cradle in two different positions related to block 4.

The belt 1 is shown as being attached to the support member 2 by means of rivets 15, but it may run loosely in 25 a groove formed between the block 4 and the support member 2 or through the block itself. Also, the version shown is to enable a rod to be worn at the right-hand side of the



wearer's body, and obviously a left-handed version could also be made. If the rest is to be useful with a fly fishing rod, the balance may be different and the positions of the recesses 9 and 10 may be reversed to allow for a rear weighted rod. Further, the wing nut 13 may be replaced by a nut embedded in a suitably shaped body of plastics material to allow ready manual loosening and tightening.

Turning now to Figures 4 and 5, there is shown an alternative arrangement in which an arcuate thigh embracing element 21 is secured to the thigh by a thigh strap 22. In order to provide for full support of the member 21, the harness may further include a waist belt 23 and a vertical strap 24 attached to the waist belt and to the member 21. These elements are diagrammatically shown in Figure 6.

The thigh embracing element 21 is a pressing or moulding of suitable plastics material and it is provided with an off-set portion 25 having holes to receive fixing studs 26 attached to the rod 27 of a cradle. The cradle is formed by out-turned arcuate ends 28 and 29 of the rod 27. These ends are in a plane generally normal to the rod and as illustrated, the end 28 is curved downwards and the end 29 is curved upwards so as to provide the same function as the recesses 9 and 10 previously described. The curved ends 28 and 29 and the adjacent parts of the rod 27 may be covered with sleeves 31 of plastics material if required. The studs 26 are formed with collars 32 and the threaded ends of the studs are secured with wing nuts 33. It is



- 5 -

preferred that a metal washer 34 be inserted beneath each wing nut 33, and a fibre washer beneath each shoulder 36.

5 In the position illustrated, the rod 27 is inclined, but if use is made of an additional mounting hole 35, then the rod 27 may be used alternatively in a horizontal position.

10 It will be appreciated that if the cradle is to be used for a fly fishing rod, wherein the position of the reel near the end tends to load the bottom end of the rod, then the ends 28 and 29 need to be reversed. This means that a completely different cradle needs to be fitted.

15 Clearly, if an angler wishes to support the rod on the left side then a reversed arrangement also has to be used.

20 It will be seen that the wing nut 33 projects beneath the off-set portion 25, and it is preferred that they should remain substantially outside the arc of the thigh embracing element 21 for the wearer's comfort. Additionally, the side strap can be arranged to pass through apertures 41 placed on either side of the off-set portion 25 so that the side strap itself passes between the wearer's body and the wing nuts.

25 Further apertures 42 are provided in the thigh embracing portion for attachment of the strap 24 either forwardly or rearwardly of the off-set portion 25 and depending on whether the weight of the rod is expected to be exerted forwardly or rearwardly.

Although the straps 22 and 23 may be secured by



- 6 -

buckles, it is preferable that the ends be secured by a peelable fastner, e.g. provided by hook tape and looped tape as sold under the trade mark Velcro.

5 The strap 24 may be also attached by a peelable fastener if required.

Various modifications may be made within the scope of the invention.



- 7 -

CLAIMS

1. An angling aid in the form of a harness for attachment to the angler's body and including a cradle for support of a fishing rod.
2. An angling aid as claimed in claim 1, in which the cradle comprises a strip having two spaced projecting arms, a forward one of which has a recess in an upper edge, while the other, rearward, arm has a recess in the lower edge.
3. An angling aid as claimed in claim 2, in which the angle of the cradle is adjustable relative to the harness.
4. An angling aid as claimed in claims 1, 2 or 3, in which the harness includes a belt to pass round the user's body and a forward support to extend downwardly from the belt to rest on the forward part of the user's thigh to inhibit forward tilting of the harness.
5. An angling aid as claimed in claim 1, in which the cradle is mounted on a thigh embracing element securable by a strap around the thigh.
6. An angling aid as claimed in claim 5, in which the harness includes a waist belt and a generally vertical strap extending between the waist belt and the thigh embracing element.



- 8 -

7. An angling aid as claimed in claims 1, 4 or 6, in which the cradle is formed of metal rods bent to form two arcuate end portions in planes generally normal to the length of the rod, the ends being one below and one above 5 the length of the rod.

8. An angling aid as claimed in claims 5, 6 or 7, in which the cradle is readily releasable from the thigh embracing element.

9. An angling aid substantially as hereinbefore described 10 with reference to Figures 1 to 3 of the accompanying drawings.

10. An angling aid substantially as hereinbefore described with reference to Figures 4 to 6 of the accompanying drawings.



FIG. 1.

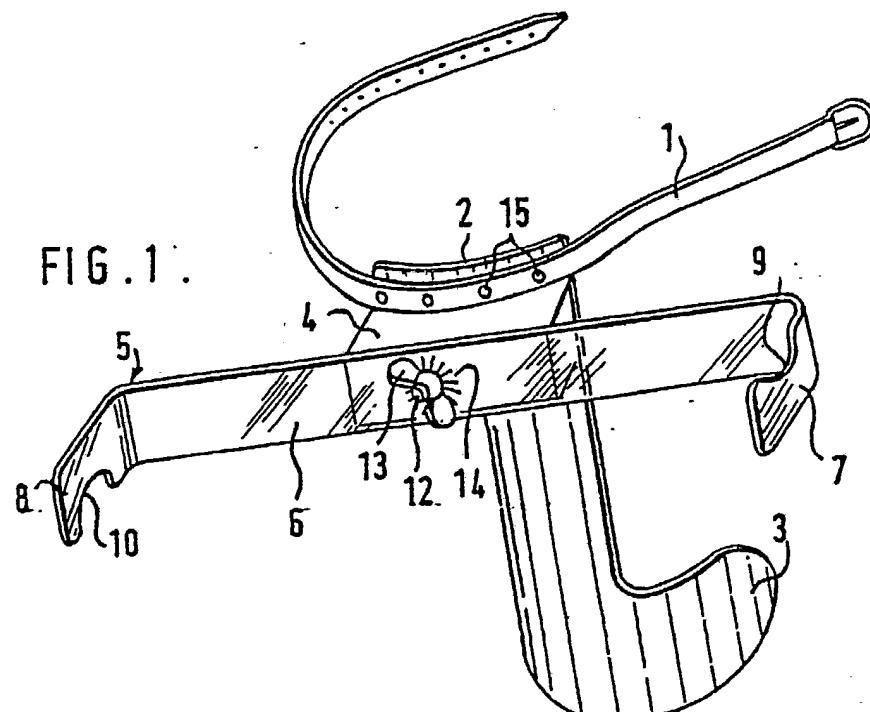


FIG. 2.

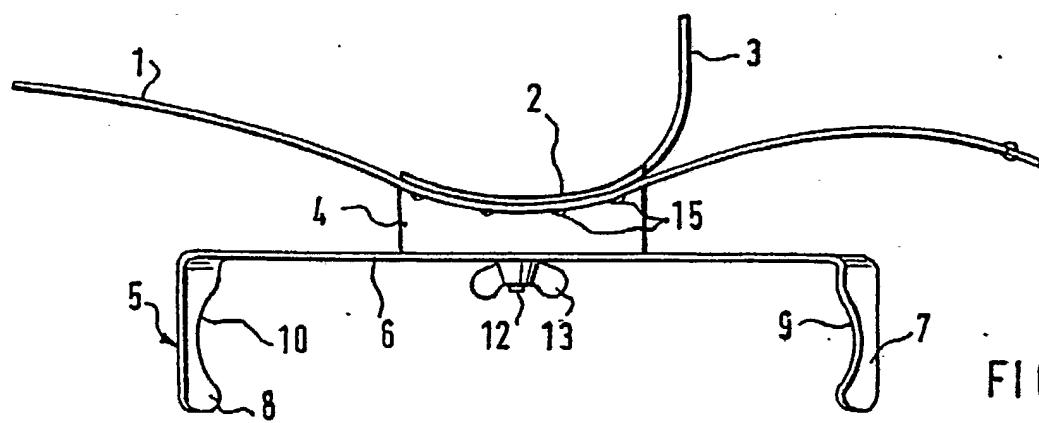
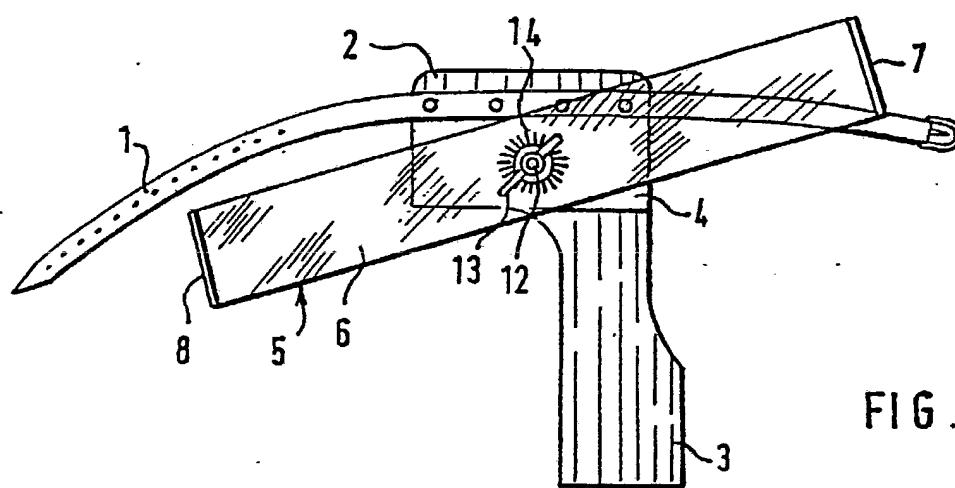


FIG. 3.



FIG. 4.

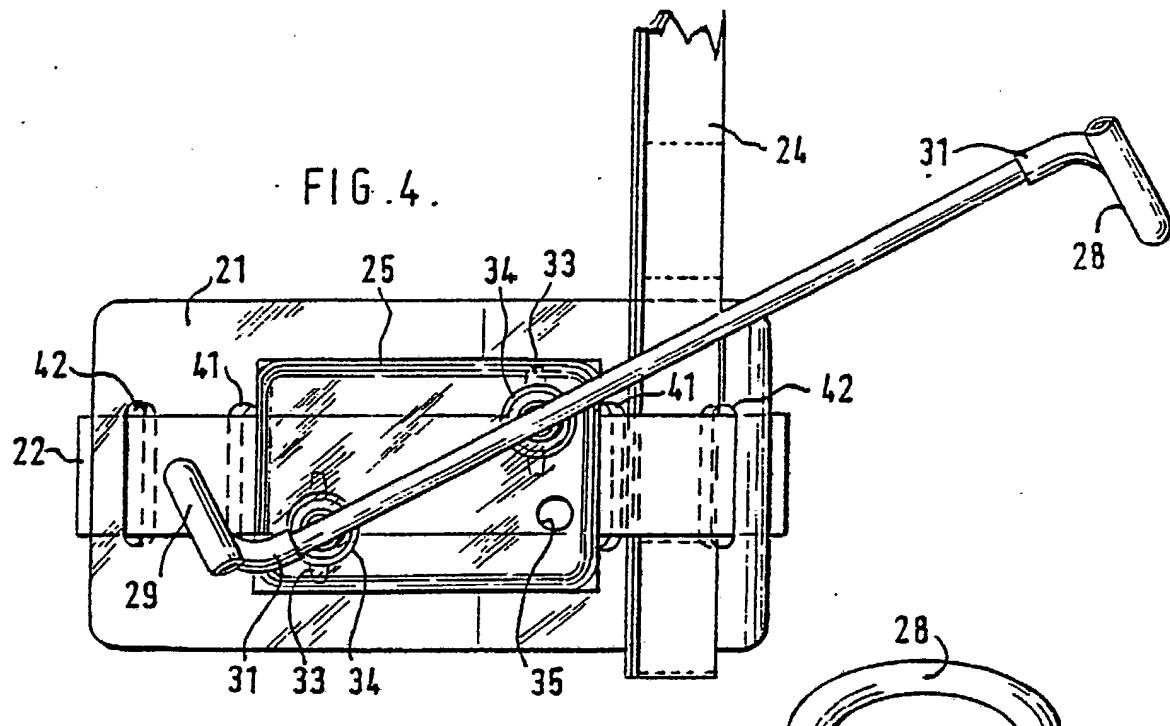
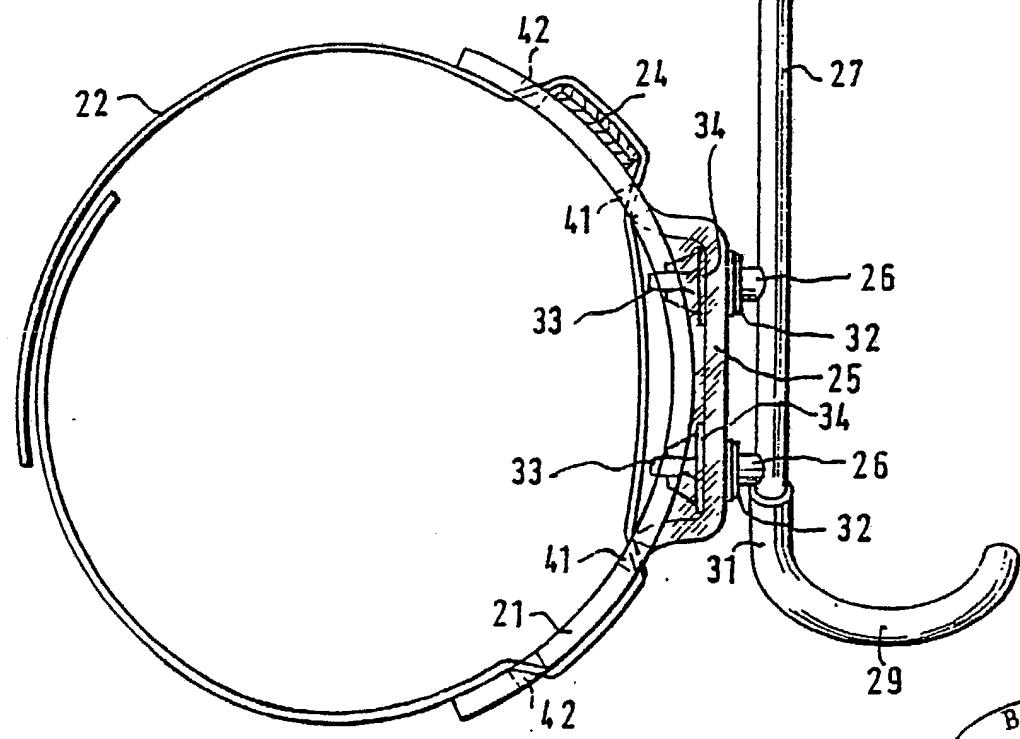


FIG. 5.



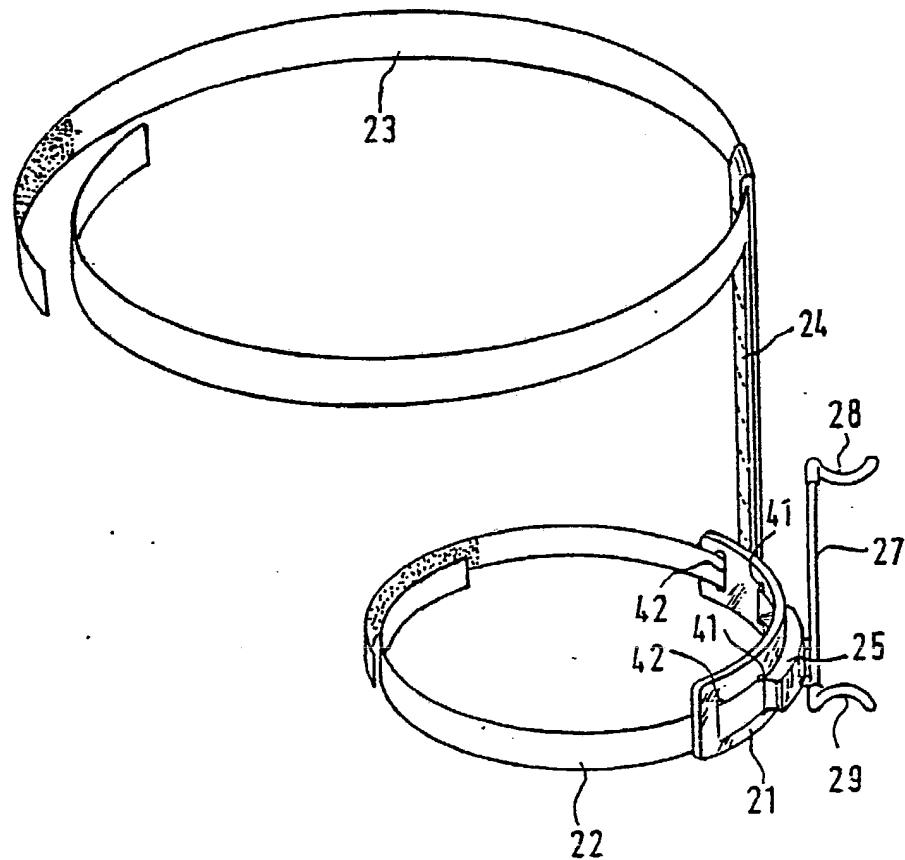


FIG. 6.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB 83/00286

I. CLASSIFICATION OF SUBJECT MATTER (If several classification symbols apply, indicate all) ¹⁴

According to International Patent Classification (IPC) or to both National Classification and IPC

IPC³: A 01 K 97/10

II. FIELDS SEARCHED

Minimum Documentation Searched ¹⁴

Classification System	Classification Symbols
IPC ³	A 01 K; A 45 F

Documentation Searched other than Minimum Documentation
to the Extent that such Documents are Included in the Fields Searched ¹⁴

III. DOCUMENTS CONSIDERED TO BE RELEVANT ¹⁴

Category ¹⁴	Cited Document, ¹⁴ with indication, where appropriate, of the relevant passages ¹⁷	Relevant to Claim No. ¹⁴
X	US, A, 2696899 (BROOKS) 31 January 1961 see the whole document --	1,2,3,4,6
X	GB, A, 581392 (BUGGINS) 7 November 1946 see the whole document --	1,2,7
X	US, A, 2954909 (MILLER) 4 October 1960 see the whole document --	1,3,8
X	US, A, 2742211 (CRAFT) 17 April 1956 see the whole document --	1,3
X	US, A, 1761497 (SMITH) 3 June 1930 see the whole document -----	1,5

* Special categories of cited documents: ¹⁴

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

IV. CERTIFICATION

Date of the Actual Completion of the International Search ¹⁴

28th March 1984

Date of Mailing of this International Search Report ¹⁴

24 AVR. 1984

International Searching Authority ¹⁴

EUROPEAN PATENT OFFICE

Signature of Authorized Officer ¹⁴

G. L. M. Klyenberg

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON

INTERNATIONAL APPLICATION NO. PCT/GB 83/00286 (SA 6114)

This Annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 16/04/84

The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A- 2696899		None	
GB-A- 581392		None	
US-A- 2954909		None	
US-A- 2742211		None	
US-A- 1761497		None	